AMENDMENTS TO THE DRAWINGS

Applicant is submitting herewith a Replacement Sheet with amended Figure 3.

Attachment: One Replacement Sheet

REMARKS

Claims 1-9 and 11, 13 and 15-18 are all the claims pending in the application. By this Amendment, Applicant amends claims 1, 7 and 11. Applicant also cancels claims 2, 12 and 14 without prejudice or disclaimer. Applicant also adds claims 19-21.

A. Objection to drawings

The Examiner has objected to FIG. 3 for allegedly being drawn to new matter. In view of the amended FIG. 3 submitted with this Amendment, Applicant respectfully requests the Examiner to withdraw the objection to the drawings. No new matter is being added.

B. Objection to the specification

The Examiner asserts, on page 6 of the Office Action, that the Amendment filed on August 20, 2007 is objected to under 35 U.S.C. § 132(a) because it introduces new matter into the disclosure. In view of the amendments to the specification submitted with this Amendment, Applicant respectfully requests the Examiner to withdraw the objection to the specification. No new matter is being added.

C. Claim objections

Claims 1-6, 11-12 and 16-18 are objected to because of minor informality in claim 1. Applicant has revised claim 1 and respectfully requests the Examiner to withdraw the objection to the claims.

D. Claim rejections - 35 U.S.C. § 101

Claims 1-9 and 11-18 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. To expedite prosecution, Applicant has

amended claim 1 to overcome the Examiner's rejection. In view of the above, Applicant respectfully requests the Examiner to withdraw the 35 U.S.C. § 101 rejection.

E. Claim rejections - 35 U.S.C. § 112, first paragraph

Claims 7-9, 13, and 15 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

In order to comply with the enablement requirement, Applicant has amended claim 7 with "a dividing module", "first set of determination units", "second determination unit" and "an outputting module." Accordingly, Applicant respectfully requests the Examiner to withdraw the 35 U.S.C. § 112, first paragraph rejection.

F. Claim rejections - 35 U.S.C. § 112, second paragraph

Claims 7-9, 11, and 13-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant thanks the Examiner for pointing out during the interview of December 11, 2007, with particularity, the aspects of the claims thought to be indefinite. In view of the claim amendments submitted with this Amendment, Applicant respectfully submits that claims 7-9, 11, and 13-15 comply with the requirements under 35 U.S.C. § 112, second paragraph.

G. Claim rejections - 35 U.S.C. § 102

Claims 1-2, 6-9 and 11-18 are rejected under 35 U.S.C. §102(b) as being anticipated by Kwan et al ("Implementation of DSP-RAM: An Architecture for Parallel Digital Signal Processing in Memory," 2001; hereinafter "Kwan"). Applicant traverses the rejection for at least the following reasons.

Claim 1 recites, *inter alia*, "wherein said determining said optimal code vector among said plurality of optimal group code vectors comprises evaluating an index of each optimal group code vector uniquely identifying each optimal group code vector within said codebook."

Applicant respectfully submits that Kwan does not disclose the unique feature of claim 1 recited above. Specifically, in the portion cited by the Examiner, Kwan discloses that instead of sending the data vector, the much smaller index of the matching code word is sent. Moreover, Kwan discloses that at the receiver, the index is used to retrieve one codeword from a copy of the same code book. (page 0344).

During the December 11th interview, the Examiner asserted that Kwan discloses indexes that are used to identify the codewords. The Examined added that in Kwan system, the indexes are used to select an element and the selected element is then evaluated and therefore, Kwan discloses the features recited above. Applicants respectfully disagree.

Applicant respectfully submits that Kwan discloses that an index is merely used to select an codeword and does not disclose anything about evaluation of the index. Therefore, it is improper for the Examiner to allege that indices that are merely used to identify codewords disclose evaluating an index of each optical group code vector.

For example, according to non-limiting embodiments described in the specification, the codebook search uses Cross/Energy multiplication expression which is based on fixed point operations (page 9, lines 1-9 of the specification) and does not use an L2-norm on incoming data vector as disclosed in Kwan. As such, the sequence of searching can be changed with the use of the cross multiplication norm and fixed point calculation especially if equality in search occurs. Accordingly, changing the searching sequence with the use of cross/energy multiplication norm

and fixed point calculation is not disclosed by Kwan. For example, if the best index of the even index codewords and the best index of the uneven index codewords are determined at end; the best index between those has to be selected and it has to be the one that would have been selected if all indexes were to be searched sequentially with the fixed point arithmetic.

Therefore, in order to attain absolute conformity with the corresponding standard, exemplary embodiments of the specification disclose evaluating of the index of the optimal group code vectors. On the contrary, Kwan does not disclose evaluating the index of the optimal group code vectors.

In view of the above, Applicant submits that claim 1 is allowable over the cited reference.

Claim 7

Applicant respectfully submits that claim 7 recites subject matter analogous to claim 1, and therefore is allowable for at least the analogous reasons claim 1 is allowable.

Claims 2, 6, 8, 9 and 11-18

Applicant submits that claims 2, 6, 8, 9 and 11-18 depend from either claim 1 or 7, and therefore are allowable at least by virtue of their dependency.

H. Claim rejections - 35 U.S.C. § 103

Claims 3-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwan et al in view of Davidson et al (US Patent 4,868,867). Applicant traverses the rejection for at least the following reasons.

Claim 5

During the December 11th interview, Applicant submitted that Kwan and Davidson references do not disclose "wherein elements of a matrix representing a transfer function of at

least one filter of said synthesis section, and/or elements of auto-correlation matrices used within said CELP-algorithm and/or further precalculation and postcalculation steps for said comparison of code vectors are generated/evaluated in parallel."

In response, the Examiner asserted that Davidson discloses the CELP processing means in column 12, lines 60-column 13, line 19; column 14, lines 15-56; and FIG. 5) and the last paragraph on page 0345 suggests that future work on DSP-RAM will likely include design of full implementations of practical digital signal processing systems. The Examiner alleged that since Kwan discloses that future work would include full implementation of the processing system (page 345), this suggest that a code excited linear prediction (CELP) algorithm as shown in Davidson could be done in parallel using the DSP-RAM.

In response to the Examiner's assertion, Applicant submits that the last paragraph of Kwan states "**future works** on DSP-RAM will like include full implementations of practical digital signal processing systems" (page 345). Since Kwan merely suggests that future works may incorporate digital processing systems, Kwan does not meet the requirement of enablement. That is, Kwan does not enable one of ordinary skill in the art to practice a full implementations of practical digital signal processing systems.

In *Novo Nordisk Pharmaceuticals Inc. v. Bio-Technology General Corp* the Courts stated that "[i]n order to anticipate, **a prior art disclosure must also be enabling, such that one of ordinary skill in the art could practice the invention without undue experimentation.**" 76 USPQ2d 1811, 1816. Furthermore, the Court stated that "anticipation does not require actual performance of suggestions in a disclosure. Rather, anticipation only **requires that those suggestions be enabled to one of skill in the art**." 76 USPQ2d 1811, 1816.

In view of the above, it is clear that a prior art disclosure **must enable one of ordinary skill to practice the invention without undue experimentation**. Applicant respectfully submits that Kwan reference does not meet this requirement. Specifically, the suggestion in last paragraph of Kwan (i.e., future works may include full implementations) would not provide one of ordinary skill in the art with necessary knowledge as to how to implement this future work at least because it is suggested that further research is needed for full implementation. That is, this description in Kwan lacks implementation information. Accordingly, one of ordinary skill in the art would not be enabled to practice the invention without undue experimentation based on Kwan reference. Since the portion of Kwan relied on by the Examiner to reject claim 5 does not meet the enablement requirement, the rejection of claim 5 is improper. As such, Applicant respectfully requests the Examiner to withdraw the rejection for at least these additional reasons.

Claims 3-5

Applicant submits that since claims 3-5 depend from claim 1, and since Davidson does not cure the deficiency noted above with respect to claim 1, claims 3-5 are allowable at least by virtue of their dependency.

I. New claims

Applicant adds new claims 19-21, which are patentable at least by virtue of their dependency and for additional features set froth therein, to provide more varied protection.

J. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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